REMARKS

Claims 1-5, 7-18 and 23-31 are pending in the present application. Applicants respectfully request reconsideration of the present claims in view of the foregoing amendment and the following remarks.

I. Record of Telephone Interview

Applicants would like to thank Examiner Singh for conducting a telephone interview with the Applicants on January 28, 2004. Applicants are very grateful for Examiner Singh's indication of potential allowability for claims reciting the dynamic displaying of a complex character as it is formed after each character is appended to the previous character in a sequence, as well as for claims reciting the use of a state transition table in forming a complex character.

II. Prior Art Rejections:

Claim Rejections Under 35 U.S.C. §103(a)

Rejection of Claims 1-2, 7-15, 18, 23-24, and 26 Under 35 U.S.C. §103(a) in View of Sun

Claims 1-2, 7-15, 18, 23-24, and 26 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,802,482 to Sun (hereinafter "Sun"). This rejection is respectfully traversed for at least the reasons given in Applicants' Amendment and Response filed on September 2, 2003 in response to the May 2, 2003 Office Action. Additionally, claims 1, 7, 14, 18, and 24 have been amended to recite the functionality of dynamically displaying a complex character as it is formed after each character is input to provide an enhanced user experience.

FIG. 10 illustrates a valid sequence of simple Hindi characters input on a user's keyboard and the resulting output. As each character is input, the complex character that is created according to the rules of the selected language, as formed using all of the previously input characters in the sequence, is displayed to the user. The resulting output that is displayed to the user is not necessarily intuitive given the character sequence input. Therefore, by displaying the complex character as it is formed, the user of the present invention is provided an enhanced

experience because he or she is able to see and, if necessary, correct the complex character as the simple characters are typed into the keyboard.

Sun teaches away from such a dynamic display of a complex character. The method of Sun does not form a complex character as a user inputs each character. In the method of Sun, the entire string of characters must be inserted first to determine whether the string of characters can form a foreign language character according to the combining rules of the foreign language. Then, a subsequent operation is necessary (i.e., header information) to assemble the string of characters into a data structure. It is only after the header is complete that the method of Sun is able to create a complex character. Even *if* the teachings of Sun were modified so that characters are displayed as they are input, the display would be limited to a string of simple characters rather than a complex character as taught by embodiments of the present invention since the header taught by Sun is not created until after the input sequence of characters is complete. Therefore, it is impossible for one skilled in the art to create a system or method according to the teachings of Sun that dynamically displays a complex character as it is formed.

Accordingly, for at least the reason that Sun teaches away from dynamically displaying complex characters as characters are input by a user, amended claims 1, 7, 14, 18, and 24 are allowable over Sun. For at least the reason that claims 2, 8-13, 15, 23 and 26 depend from allowable independent claims 1, 14, 16, and 18, dependent claims 2, 8-13, 15, 23 and 26 are also allowable over Sun.

Rejection of Claims 16-17 Under 35 U.S.C. §103(a) in View of Sun and Hetherington

Claims 16-17 are rejected under 35 U.S.C. §103(a) as being unpatentable over Sun in view of U.S. Patent No. 6,411,948 to Hetherington et al. (hereinafter "Hetherington"). This rejection is respectfully traversed for at least the reasons given in Applicants' Amendment and Response filed on September 2, 2003 in response to the May 2, 2003 Office Action.

Additionally, claim 16 has been amended to recite the functionality of dynamically displaying a complex character as it is formed after each character is input to provide an enhanced user experience as illustrated in FIG. 10. As discussed above, Sun teaches away from

dynamically displaying a complex character formed as characters are input by a user. Even *if* the teachings of Sun were combined with the teachings of Hetherington so that characters are displayed as they are input, the display would again be limited to a string of simple characters rather than a complex character since the header taught by Sun is not created until after the input sequence of characters is complete. Because Sun teaches away from this recitation of the present invention, and because a combination of Sun and Hetherington would produce at best a display of an output of simple characters rather than a complex character, claim 16 is allowable over Sun in view of Hetherington.

Claim 17 is directed to a sequence checking feature of one embodiment of the present invention. Pages 28-30 of the specification and FIG. 8 describe this embodiment. According to this embodiment, while typing a complex character sequence, a user may move the cursor to another location in a sequence of characters to begin typing complex characters again. At the new location, the present invention starts at the cursor location and moves backwards in the sequence, combining characters sequentially to the left of the cursor until a complete sequence of characters comprising a complex character has been found or until the maximum number of characters that may comprise a valid sequence of characters according to the rules of the selected language has been reached.

Neither Sun nor Hetherington teaches, *inter alia*, "determining a maximum number of characters that may comprise a valid sequence of characters according to the rules of a selected language; if the combination is not valid as a complete sequence of characters comprising the complex character, then determining whether the combination combined with a next character to the left of the combination is valid as a complete sequence of characters comprising a complex character, and if not, then *creating subsequent combinations of characters by adding one character at a time to the left of the last subsequent combination until the maximum number of characters that may comprise a valid sequence have been combined* to form a sequence of characters that may be checked for validity as a complete sequence of characters comprising a complex character; and if one of the subsequent combinations of characters is valid as a complete sequence of characters comprising a complex character according to the rules of the selected language, then returning a context for the one subsequent combination as the context for a

complex character." Since neither Sun nor Hetherington, nor a combination of the two references, teach, suggest, or describe each recitation of claim 17, claim 17 is allowable over Sun in view of Hetherington.

Rejection of Claims 3-5, 25 and 27-31 Under 35 U.S.C. §103(a) in View of Sun and Hetherington2

Claims 3-5, 25 and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sun in view of U.S. Patent No. 6,272,495 to Hetherington (hereinafter "Hetherington 2"). This rejection is respectfully traversed for at least the reasons given in Applicants' Amendment and Response filed on September 2, 2003 in response to the May 2, 2003 Office Action. Applicants repeat their assertion that there is no motivation or suggestion in the prior art to combine the teachings of Sun with the table of Hetherington 2. Applicants additionally submit that claims 3-5 and 25 depend from allowable independent claims 1 and 14, which were amended to more clearly recite the dynamic displaying capabilities of the present invention. Applicants appreciate and refer to Examiner Singh's indication during the telephone interview of January 28, 2004 of potential allowability for claims reciting the use of a state transition table in forming a complex character. Claims 28-31 depend from independent claim 27, which recites the use of a state transition table in forming a complex character. Moreover, claim 29 was amended to recite the functionality of dynamically displaying the complex character that is formed as each character is input to provide an enhanced user experience. Accordingly, for at least these reasons, claims 3-5, 25, and 27-31 are allowable over Sun in view of Hetherington 2.

III. New Claim 32:

Applicants have added new claim 32. New claim 32 recites, *inter alia*, the functionality of dynamically displaying a complex character as it is formed when a second character is input by a user and that second character is appended to a first character. For at least the reasons discussed above with respect to claims 1-2, 7-15, 18, 23-24, and 26, new claim 32 is allowable over the art of record.

III. Conclusion:

For at least the reasons given above, Applicants submit that claims 1-5, 7-18 and 23-31 define patentable subject matter. Accordingly, Applicants respectfully request allowance of these claims.

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. 13-2725.

Should the Examiner believe that anything further is necessary to place the application in better condition for allowance, the Examiner is respectfully requested to contact Applicants' representative at the telephone number listed below.

Respectfully submitted,
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